

Headquarters U.S. Air Force

Integrity - Service - Excellence

CE Operations Regulatory Compliance Within an Asset Management Framework



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- **Air Force is lagging in efforts to sustain critical infrastructure**
- **Air Force transformations have created challenges**
 - **Staff reductions**
 - **Shifts in funding guidance**
 - **Reorganization of CE squadrons**
 - **Transition to Asset Management organization**
 - **Changes in roles and responsibilities**
 - **Loss of institutional knowledge**
- **How can Asset Management staff help CE Ops maintain compliance under Asset Management?**



Policy Changes

- **2001 – Change in ECP and SRM funding guidelines**
 - Projects needed to sustain environmental compliance of critical infrastructure funds under SRM
 - CE Ops staff are not broadly knowledgeable of specific compliance requirements, regulatory deadlines, funding policies, and historical activities, and future requirements
 - Large learning curve for CE Ops
- **2005 – Program Budget Decision (PBD) 720**
 - 40,000 military cut; CES reorganized from 8 to 6 flights
- **2006 – Air Force Smart Operations for the 21st Century (AFSO 21)**
 - Reduce budget for installation support by 20% by 2020
 - Reduce size of physical plant by 20% by 2020



Policy Changes

The magnitude of the learning curve for CE Operations staff is large:

- NPDES permit compliance
- Pretreatment systems (OWS, GT)
- Septic Tanks and Leach Fields
- Sanitary Sewer Overflow (SSO) prevention
- Capacity, Management, Operation, and Maintenance (cMOM) compliance
- Sewage lift station alarms and inspections
- Reclaimed wastewater reuse compliance
- Stormwater Pollution Prevention
- Construction Stormwater Permitting and Erosion and Sedimentation Control
- Post-Construction Best Management Practices (BMP)
- Stormwater BMP monitoring, inspections, repairs, and operations and maintenance
- Drinking water maximum contaminant levels (MCL)
- Backflow prevention
- Stage 2 Disinfection Byproduct Rule compliance
- Coliform Rule
- Lead and Copper Rule
- Source Water Protection and Wellhead Protection
- Arsenic Rule
- Water Rights
- Spill Prevention, Control, and Countermeasure (SPCC) compliance
- Facility Response Plan (FRP) compliance
- Aboveground Storage Tank (AST) compliance
- Underground storage tank regulations



Trends in Enforcement Actions

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Year	CWA Enforcement Actions	SDWA Enforcement Actions
2003	4	1
2004	6	1
2005	6	3
2006	20	7
2007	14	20
2008	11	7



Asset Management Paradigm Shift

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- **The transition to asset management is driven by Executive Order (EO) 13327, *Federal Real Property Asset Management*, published in February 2004:**
 - **Develop and implement an asset management planning process to promote the efficient and economical use of federal real property assets**
 - **Establish appropriate performance measures to evaluate the costs and benefits involved with acquiring, repairing, maintaining, operating, managing, and disposing federal real property assets**
 - **Determine life cycle cost estimates associated with prioritized actions to improve the operation and management of federal real property assets.**



Asset Management Paradigm Shift

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- **Old paradigm for sustaining critical infrastructure:**
 - **Suffer budget cuts, staff reductions, deployments**
 - **Accomplish minimum compliance requirements**
 - **Operate in a “run-to-failure” mode**
- **New paradigm:**
 - **Manage assets to achieve desired Levels of Service**
 - **Reduce deferred maintenance**
 - **Practice sustainable O&M**
 - **Balance performance, risk, expenditures over lifecycle**
 - **Make risk-based decisions according to mission dependency**



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Proposed Conceptual Model

- **Embrace Change**
- **Eliminate Stovepipes**
- **Seize Opportunities**
- **Enable Fact-Based Decisions**



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Embrace Change

Your cheese is about to be moved

- **Change Happens**

They keep moving the cheese

- **Anticipate Change**

Get ready for the cheese to move

- **Monitor Change**

Smell the cheese often so you know when it's getting old

- **Adapt To Change Quickly**

The quicker you let go of old cheese, the sooner you can enjoy new cheese

From: *Who Moved My Cheese*, Spencer Johnson, MD



Embrace Change

- **Asset Management, and specifically Activity Management Plans, will provide a framework for achieving compliance and managing change**
 - **Facilitates collaboration between organizations**
 - **Improves documentation of critical information**
 - **Warehouses compliance milestones**
 - **Eliminates the need to do things twice (ready access)**
 - **Creates an Executive Summary of current conditions and forecasted needs**



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Eliminate Stovepipes

- **Become a recognizable resource**
- **Develop a local resource tool**
- **Establish a reference library**
- **Track new and recurring requirements**
- **Facilitate regulatory agency coordination**
- **Support compliance issue resolution**
- **Review new projects**
- **Support GeoBase as an Asset Management tool**
- **Brief Leadership**



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Eliminate Stovepipes

Become a recognizable resource

- **Get out of your office**
- **Make sure CE Ops and shop-level staff know you**
- **Make regular shop visits**
 - **Not to critique or inspect**
 - **To develop good lines of communication and good working relationships**
- **Establish yourself as a recognizable resource**



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Eliminate Stovepipes

Develop a local resource tool

- **Help staff know who to contact for support**
- **Ideally hosted on the installation web site**
- **Provide printable lists**
 - **Points of contact**
 - **Areas of responsibility**
 - **Key initiatives**
- **Advertise the location and benefits of this resource tool**



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Eliminate Stovepipes

Establish a reference library

- **DW Master Plans**
- **Wellhead Protection Plans**
- **Source Water Protection Plans**
- **Sanitary Surveys**
- **Backflow Surveys**
- **Water Distribution Models**
- **Water Rights Documentation**
- **Reference your classified Water Vulnerability Assessment on the SIPRNET**
- **WW Master Plans**
- **Infiltration/Inflow Studies**
- **OWS Studies**
- **SW Pollution Prevention Plans**
- **Spill Prevention, Control, and Countermeasure Plans**
- **Contingency Response Plans**



Eliminate Stovepipes

Track new and recurring requirements

- **Asset Management staff are most familiar with compliance requirements**
- **CE Ops staff will have to program SRM projects to accomplish recurring compliance requirements**
- **There is a need to anticipate these requirements**
- **Prepare checklists of requirements and deadlines**
- **Brief CE Ops regarding required projects**
- **Projects should be programmed several years in advance**
- **Don't let recurring requirements fall through the cracks**



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Eliminate Stovepipes

Facilitate regulatory agency coordination

- **Asset Management staff are the most familiar with regulatory agency representatives**
- **Invite CE Ops staff to participate when agency staff make site visits and conduct inspections**
- **Facilitate open lines of communication**
- **Raise awareness of issues that the agency considers important**



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Eliminate Stovepipes

Review demolition, renovation, and new projects

- **Construction SW permitting**
- **SW runoff controls**
- **Post-construction BMP**
- **BMP inspection and maintenance**
- **Awareness of OWS, GT, septic tanks**
- **Proper abandonment of underground utilities, UST, OWS, etc.**
- **Spill Prevention Control and Countermeasure requirements**
- **Asbestos abatement**
- **Adequacy of existing utilities to support new construction**



Eliminate Stovepipes

Support GeoBase as an Asset Management tool

- **Become familiar with the GeoBase information for your critical infrastructure**
- **Review for accuracy and identify data gaps**
- **Ensure contractor scopes of work include the collection and submittal of geospatial information**
- **Require a minimum number of utility attribute fields be populated**
- **Support the development of GPS data quality standards**
- **Ensure preservation and filing of “as-built” drawings**



Eliminate Stovepipes

Brief Leadership

- **Use the momentum generated by asset management to gain attention**
- **Summarize issues in bullet papers**
- **Forecast the resources and timeframes required for compliance**
- **Warn of impending train wrecks and offer solutions**
- **Define the regulatory and mission penalty for non-compliance**
- **Ask Leadership to encourage collaboration between sister organizations**



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Seize Opportunity

- **Seek first to understand and then to be understood¹**
- **Cross train**
- **Program for sustainability**
- **Synergize¹**

¹ *The 7 Habits of Highly Successful People*, Stephen Covey



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Seize Opportunity

Seek first to understand and then to be understood

- **Learn the concepts, methods, and vocabulary of asset management**
- **Express your needs in asset management terms**
- **The Utilities Activity Management Plan (AMP) is the Executive Summary of your activity**
- **Ensure your compliance and sustainability needs are represented in the AMP or they will be invisible**
- **Seize opportunities created by this new way of doing business**



Seize Opportunity

Cross train

- “The cost of training is high but the cost of ignorance is higher”¹
- Seek opportunities for no-cost or low-cost training
- Short-term training goals and methods
 - Fundamental compliance issues
 - Sustainable O&M practices
 - Co-participate in regulatory agency visits
 - Participate as an observer during an ESOHCAMP
 - Tackle a joint initiative with a sister organization

¹ Mark Hall, P2 Manager, Shaw AFB



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Seize Opportunity

Cross train (cont.)

- **Long-term training goals and methods**
 - **Curb the loss of institutional knowledge**
 - **Mitigate the effects of staff reductions and the retirement of the aging workforce**
 - **Develop a mentor/protégé program**
 - **Support succession planning**



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Seize Opportunity

Program for Sustainability

■ Old Objectives

- Suffer budget cuts, staff reductions, deployments**
- Accomplish minimum compliance requirements**
- Operate in a “run-to-failure” mode**

■ New Objectives

- Manage assets to achieve desired Levels of Service**
- Reduce Deferred Maintenance**
- Practice Sustainable O&M**



Seize Opportunity

Program for sustainability

- **Develop comprehensive asset inventories and condition assessments**
- **Improve maps and GeoBase data**
- **Conduct phased projects to repair and modernize degraded infrastructure and reduce deferred maintenance**
- **Develop O&M manuals and continuity books**
- **Request adequate annual O&M budgets and resources to achieve Levels of Service indefinitely**
- **Help CE Ops define, program and justify necessary projects**



Seize Opportunity

Synergize

- **Synergy – when two people cooperate to produce far better results than either could alone ($1+1=3$)**
- **Synergy is not compromise, but “Win-Win”**
- **Working together to achieve a common goal can have improved results:**
 - **Improved efficiency**
 - **Reduced costs**
 - **Improved results**
 - **Greater visibility**
 - **Greater support from Leadership**



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Enable Fact-Based Decisions

- **Seek input from all relevant stakeholders**
- **Accurately characterize the quality of your data**
- **Track all of your responsibilities even if you cannot do them all**



Enable Fact-Based Decisions

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Seek input from all relevant stakeholders

- **CE Ops will own the Utilities AMP, but will not have all the data and answers**
- **Other stakeholders include:**
 - **Asset Managers**
 - **Compliance Staff**
 - **Utility Shop**
 - **Bioenvironmental Engineering**
 - **Fire Department**
 - **Readiness**
 - **Antiterrorism Office**
- **The AMP is the Executive Summary for your activity**



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Enable Fact-Based Decisions

Accurately characterize the quality of your data

- You must assign a level of confidence to your data
- Be honest or you will not receive high priority funding
- Example:
 - Accurate utility maps and GeoBase information are very important
 - Many bases do not have accurate, complete, field-verified geospatial data
 - It is important to characterize your needs accurately



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Enable Fact-Based Decisions

Track all of your responsibilities...

...even if you cannot do them all!

- **Many bases cannot complete 100% of their RWP**
- **Some have edited the RWP to manageable levels**
- **Do not report 100% completion of the RWP when you have deleted important requirements – you will short change your installation**
- **Capture the real cost of compliance and sustainability**
- **Justify the needs for future projects and additional resources**
- **Provide Leadership with the information they need to make fact-based decisions**



Summary

- **The Air Force is lagging in efforts to sustain critical infrastructure**
- **Air Force transformations have created challenges**
- **The implementation of Asset Management represents a paradigm shift and requires new approaches, new thinking, and a change in culture**
- **Asset Management staff should use the conceptual model presented in this course to help CE Ops maintain compliance under the new Asset Management framework.**



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Thank you!

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